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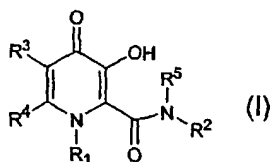
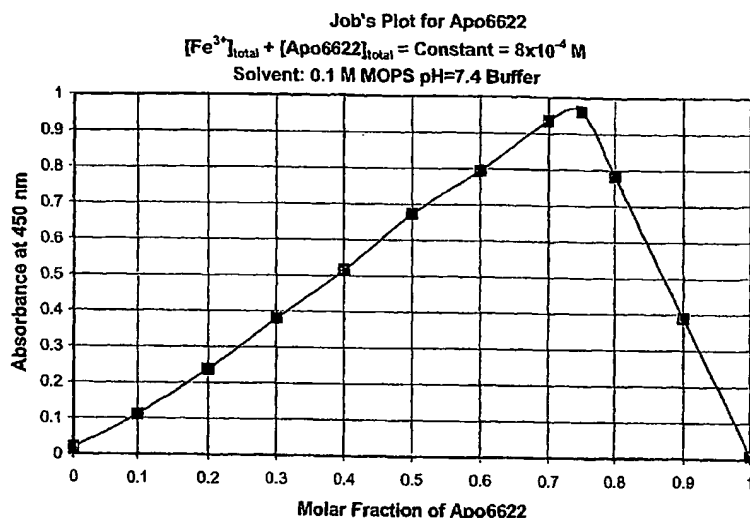
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(54) Title: CYCLOALKYL DERIVATIVES OF 3-HYDROXY-4-PYRIDINONES



(57) Abstract: The present invention provides a cycloalkyl derivative of 3-hydroxy-4-pyridinone which is useful for the chelation of metal ions such as iron. Its preparation and use is described. In particular, the invention concerns the removal of iron in chemical and biological systems including chelating agents having the formula (I); wherein R¹ is X with the proviso that R² is Y; or R¹ is T with the proviso that R² is W; or R¹ is X with the proviso that R² is N when taken together form a heterocyclic ring selected from piperidinyl, morpholinyl, pyrrolidinyl or piperazinyl, wherein the group piperidinyl, morpholinyl, pyrrolidinyl or piperazinyl is either unsubstituted or substituted with one to three C₁ to C₆ alkyl groups. X is C₃-C₆ cycloalkyl; Y is selected from the group consisting of C₁ to C₆ cycloalkyl; C₁ to C₆ alkyl, and C₁ to C₆ alkyl monosubstituted with a C₃-C₆ cycloalkyl; T is C₁ to C₆ alkyl; W is C₃-C₆ cycloalkyl; R³ is selected from the group consisting of hydrogen and C₁ to C₆ alkyl; R⁴ is selected from the group consisting

of hydrogen and C₁ to C₆ alkyl; R⁵ is selected from the group consisting of hydrogen and C₁ to C₆ alkyl; and its pharmaceutically acceptable salt thereof. Pharmaceutical compositions of such compounds are useful in the removal of excess body iron from patients with iron overload diseases.



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